

BEGONIA NOMENCLATURE NOTES. 6

Begonia cucullata Willdenow and Included Species

Jack Golding, 47 Clinton Ave., Kearny, N.J. 07032

The Species of the Begoniaceae, edition 2, 1974, by Fred A. Barkley and Jack Golding is a compendium of the published names and the published synonymy for the species and therefore continues the errors from the literature. I have been reviewing the literature to verify or correct the citations and their synonymy. My determinations will be published in this series, "*Begonia* Nomenclature Notes."

Abstract

The history of *Begonia cucullata* Willdenow, *Begonia semperflorens* Link & Otto, *Begonia spatulata* Loddiges, and *Begonia subcucullata* C. de Candolle are reviewed.

The citation and synonymy of *Begonia cucullata* Willdenow are corrected and a new variety *Begonia cucullata* var. *spatulata* is established.

Introduction

Plants from seeds labeled *Begonia cucullata* and *Begonia cucullata* var. *hookeri* have been growing in my gardens since 1975. The seeds originated in Brazil and were sent to me by J. D. Doorenbos of Wageningen, Netherlands.

Those labeled *Begonia cucullata* have a tall straight stem with little or no branching; the young leaves are cucullate and the mature leaves obliquely ovate with a sharply obtuse apex; the stipules are large, oblong, roundly obtuse and dentate. These plants are most like the illustration of *Begonia spatulata* Loddiges, Bot. Cab. 2: pl. 107. 1818.

Those labeled *Begonia cucullata* var. *hookeri* have flexuose stems with many branches; the youngest leaves are cucullate, but soon become flat, ovate, subcordate with a sharply obtuse apex; the stipules are narrowly elliptic and sharply acute. These plants are most like the illustration and description of *Begonia semperflorens* Link & Otto, Icon. Pl. Rar. 1: 9, pl. 5. (1828), and the description by Graham, Edinburgh New Philos. J. 180. 1829.

These cultivate plants appeared so different that I thought perhaps *Begonia cucullata* Willdenow and *Begonia cucullata* var. *hookeri* Smith & Schubert should be considered separate species, with the latter being *Begonia semperflorens* Link & Otto.

To determine if this could be correct, I studied the varied and sometimes conflicting illustrations and descriptions in the literature and herbarium specimens of *Begonia cucullata* Willdenow, *Begonia spatulata* Loddiges, *Begonia semperflorens* Link & Otto, and *Begonia subcucullata* C. de Candolle.

Last spring, I sent the results of my preliminary study to Lyman B. Smith and, to verify the identity of *Begonia cucullata*, he checked the microfiche photo from the Willdenow Herbarium. We were all surprised to learn that the stipules of the Willdenow specimen were narrow, sharply acute, the same as *Begonia semperflorens* Link & Otto and not broad, roundly obtuse, like those of *Begonia spatulata* Loddiges.

During a later visit to the U.S. Herbarium in Washington, D.C., I studied the specimens in the *Begonia cucullata* folder, looking for a consistent distinguishing feature that might be used to separate the specimens. The leaves and flowers, including the capsule wings were too similar, but I could use the shape of the stipules to separate them into these three distinct groups;

like *sempreflorens*, stipules small, narrow, sharply acute.

like *spatulata*, stipules large, broad, roundly obtuse and dentate.

like *cucullata* var. *arenosicola*, stipules large, oval, rounded and entire.

From my studies, I conclude it is still best to continue the combination of these species with *Begonia cucullata* Willdenow as determined by Lyman B. Smith and Bernice G. Schubert, Darwiniana 5: 101-108 (1941), but because of the shape of the stipules of the type, it is now necessary to rearrange the varieties and the synonymy.

Begonia cucullata Willdenow

The original citation of *Begonia cucullata* by Willdenow in Species Plantarum ed. 4. 4(1): 414. 1805.

*5. *BEGONIA cucullata*. W.

B. caulescens, foliis inaequaliter cordatis denticulatis glabris cucullatis, stipulis dentatis, capsulae ala maxima acutangula reliquis parallelis. W.

Kappenblättrige Begonie. W.

Habitat in Brasilia. Th. (v. f.)

Folia inaequaliter cordata oblonga denticulata glabra cucullata, breve petiolata. Stipulae oblongae dentate magna virides nec membranaceae ut in reliquis.

Flores masculi. Petala quatuor, duo opposita majora subrotunda, duo lanceolata angusta. Capsula triala, ala maxima acutangula, binae minores aequales utrinque attenuatae. Vidi tantum specimen unicum valde imperfectum. W.

Translation:

Begonia stemmed, leaves unequally cordate, finely dentate, glabrous and hooded; stipules dentate; largest wing of the capsule sharp-angled, the others parallel. Willdenow

Hooded leaf *Begonia*. Willdenow

It grows in Brazil. Shrub (I have seen it in the dried state).

Leaves, unequally cordate, oblong, denticulate, glabrous and hooded, shortly petiolate, stipules oblong dentate, large and green, not membranous as in the others. Male flowers with four petals, two opposite ones larger, almost round, the other two narrowly lanceolate. Capsule with three wings, the largest wing sharp-angled, the two smaller ones equal and attenuate on both sides.

I have seen only one very imperfect specimen. Willdenow

This description by Willdenow is sparse and there is no illustration with the citation, but I assume his descriptive terms are best illustrated by *plate 1* in Linnaeus, *Philosophia Botanica* (1751) reproduced in Stearn, *Botanical Latin*: 315, *Fig. 17*. 1966.

cordate - fig. 10 *cordatum*
oblong - fig. 5 *oblongum*

Fortunately, Dieter Wasshausen of the Smithsonian Institution was able to obtain enlarged photographs (film No. 4289) of the type (Herbar. Willdenow No. 17567) from the Berlin Botanic Museum. See my Fig. 1 & 2.

From the type, we can be certain of the shape of the stipules (Fig. 3A) and the capsule wings (Fig. 4A). Willdenow described the tip of the largest wing as sharp, but in the type some are rounded.

The leaves are not in the photo and may have been lost but, from the description, I would expect them to be like Fig. 5B & C.

The subsequent descriptions of *Begonia cucullata* by Poiret, *Encycl. Meth. Bot. Suppl. 1*: 605 (1811); Sprengel, *Syst. Veg. 2*: 625 (1825) and Walpers, *Repert. Bot. Syst. 2*: 211 (1843) are practically the same as Willdenow's and added no new features.

B. cucullata 1

Polygonum trigynum
Begonia cucullata Willd.
Centotheca cucullata (Willd.)
deublairi
 Hab. in Brasilia

Mus. Bot. Berol.
Film Nr. 4257



Begonia cucullata Willd. fl.
Begonia Willd. Sp. pl. 1811, p. 99, n. 5.
B. opathulata Kun.
B. mucosa Desf.

9

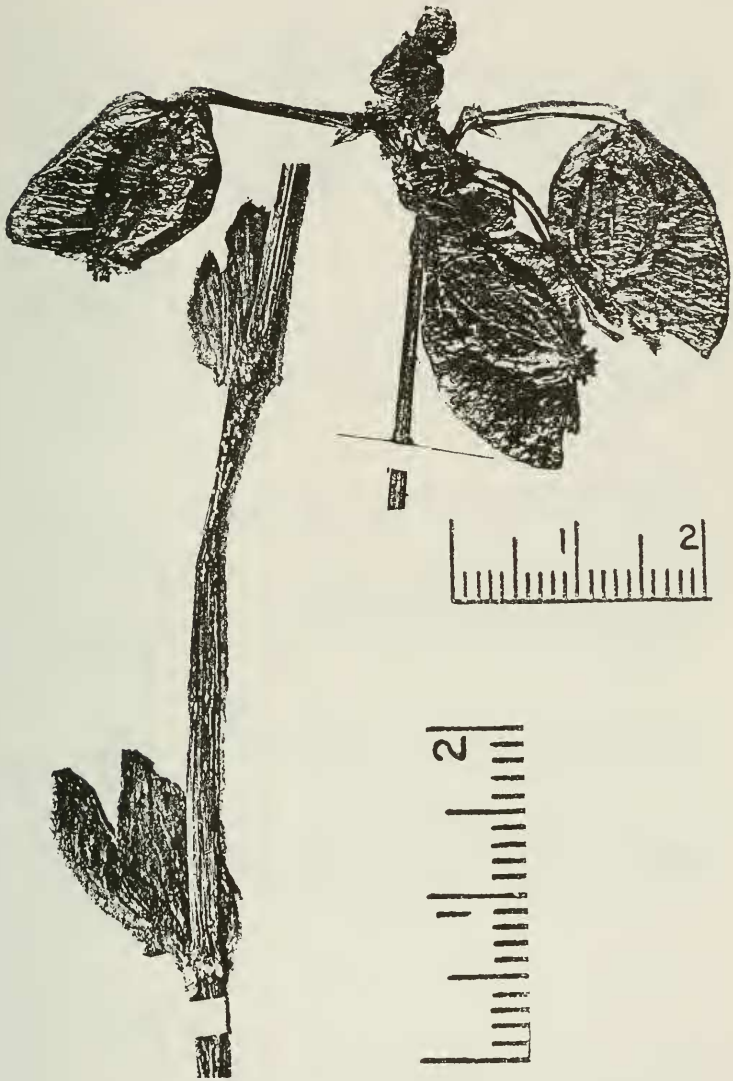
Hoehn. W

EX MUSEO BOTANICO BEROLINENSI
Begonia cucullata
 Herbar Willdenow No. 17567

TYPE

Begonia cucullata Willdenow var. *cucullata*

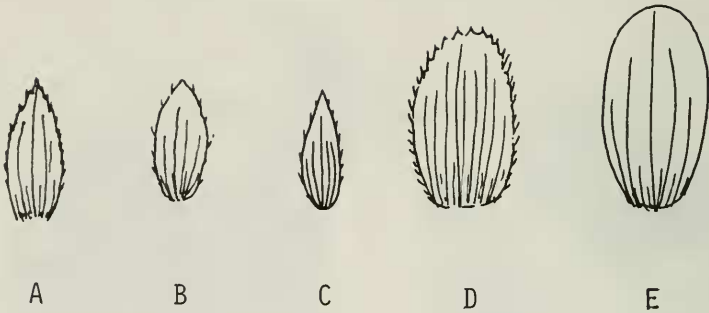
Fig. 1



TYPE

Begonia cucullata Willdenow var. *cucullata*

Fig. 2



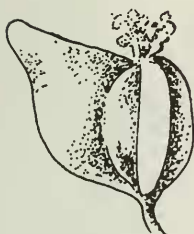
- A. *Begonia cucullata* var. *cucullata*
After Type Willdenow No. 17567.
- B. *Begonia cucullata* var. *cucullata*
After Link & Otto, *Icon, Pl. Rar.* 1:9. *pl.* 5.
1828.
- C. *Begonia cucullata* var. *cucullata*
After Hooker, *Bot. Mag.* 56. *pl.* 2920. 1829.
- D. *Begonia cucullata* var. *spatulata*
After Loddiges, *Bot. Cab.* 2. *pl.* 107. 1818.
- E. *Begonia cucullata* var. *arenosicola*
After Smith & Schubert, *Darwiniana* 5: 106.
pl. 13. 1941.

Stipules of *Begonia cucullata*

Fig. 3



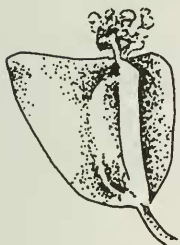
A. *BEGONIA CUCULLATA*
var. *cucullata*
After Type,
Willdenow No. 17567



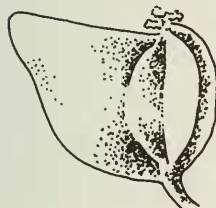
B. *Begonia cucullata* var. *cucullata*
After Link & Otto,
Icon. Pl. Rar. 1:9. pl. 5. 1828.



C. *Begonia cucullata* var. *cucullata*
After Hooker,
Bot. Mag. 56. pl. 2920. 1829.



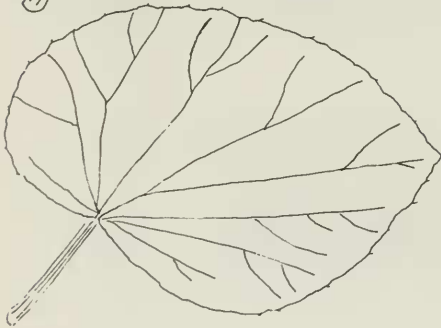
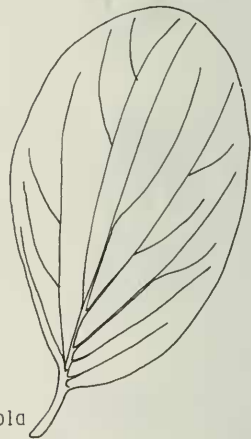
D. *Begonia cucullata* var. *spatulata*
After Loddiges,
Bot. Cab. 2. pl. 107. 1818.



E. *Begonia cucullata* var. *arenosicola*
After Isosyntype
Hassler No. 1771.

A. *Begonia cucullata* var. *cucullata*

mature leaf after Link & Otto
Icon Pl. Rar. 1:9. pl. 5. 1828.

B. *Begonia cucullata* var. *spatulata*, young leaf
after Loddiges, Bot. Cab. 2. pl. 107. 1818.C. *Begonia cucullata* var. *spatulata*
mature leaf original from cultivated plantD. *Begonia cucullata* var. *arenosicola*
after Smith & Schubert,
Darwiniana 5: 106 pl. 13. 1941.

J.



B. Richu del

Begonia semperflorens L.

F. Guimpel sc.

Begonia cucullata var. *cucullata*

after Link & Otto, *Icon. Pl. Rar.* 1:9. pl. 5. 1828.

Fig. 6

Begonia semperflorens

The original citation of *Begonia semperflorens* Link & Otto, Icon. Pl. Rar. 1: 9 pl. 5. 1828, (Fig. 6).

9

5.

BEGONIA SEMPERFLORENS.

N. O. BEGONIACEAE.

MONOECIA POLYANDRIA.

B. foliis oblique cordatis acutiusculis crenatis inter crenas apiculatis glaberrimis, vaginis tenuissimè ciliatis, inferioribus scariosis.

Habitat in Brasilia australi. ♀. C

Caulis ped. et dimidium altus vix lignosus erectus ramosus. Folia 3 poll. longa 2 poll. et dimid. lata, ubi latissima, leviter crenata margine angusto cartilagineo, apiculis minutis; vaginæ 8 lin. longæ 4 lin. latae, summae tantum vegetae tenuissime ciliatae. Thyrsus pauciflorus. Perigonii masculi phylla 2 majora 6 lin. longa 8 lin. lata, 2 minora 4 lin. longa 2 lin. lata, omnia alba. Stamina multa brevía. Flos femineus involucri phyllis 3 obtusis albis margine reflexis germine brevioribus; perigonium femineum minus ac masculum. Germen alis 3 aequalibus. Styli 4 bifidi, stigmatibus tortis.

Species *B. spatulata* proxima, differt colore caulis et foliorum viridi, nec rubente ut in *B. spatulata*, nec non vaginis quae omnes vegetae in *B. spatulata*, nec inferiores scariosae. Enata est e terra, in qua clar. Sello plantas e Brasilia australi Porto Allegretto miserat.

Der Stamm ist anderthalb Fufs hoch, kaum holzig, aufrecht, ästig. Die Blätter sind schief herzförmig 3 Zoll lang, 2 Zoll und einen halben breit, wo sie am breitesten sind, seicht gekerbt, mit einem schmalen knorpligen Rande und kleinen weichen Spitzen in den Kerben. Die Scheiden sind 8 Linien lang 6 Lin. breit, nur die obersten grün, die andern alle vertrocknet, am Rande mit feinsten Härchen. Der Blütenstraufs vonigblüthig. Die männliche Blumen vierblättrig, die beiden großen Blätter 6 Lin. lang, 8 Lin. breit, abge-

 10

stumpft, die beiden kleineren 4 Lin. lang, 2 Lin. breit. Staubfäden viele und kurze. Die weibliche Blüthe hat eine dreiblättrige Hülle; die Blättchen sind kürzer als der Fruchtknoten, stumpf, an den Seiten zurückgebogen, weiß; die Blume ist kleiner als die männliche; der Fruchtknoten hat 3 ungleiche Flügel. Vier 2theilige Griffel, die Narben spiralförmig gedreht.

Eine Zierpflanze die oft und viel blüht, der *B. spatulata* verwandt, aber unterschieden durch die grüne Farbe des Stammes und der Blätter, durch die untern verwelkten nicht grünen Scheiden. Sie wuchs aus der Erde auf, worin Herr Sello von Porto Alegretto im südlichen Brasilien Pflanzen geschickt hatte. Sie liebt einen trocknen und hellen Standort, und eine Wärme von 12 — 15° R. Die Vermehrung geschieht leicht und schnell durch Samen und Stecklinge. Die Erdmischung besteht aus Laub- und Walderde und Flußsand.

Translation from the Latin:

Begonia with obliquely cordate, slightly acute, completely glabrous leaves, crenate, apiculate between the teeth; with very thinly ciliate stipules, the lower ones scarious.

It grows in southern Brazil. Shrub. (C?)

Stem 1 1/2 ft. high, scarcely woody, erect, branched. Leaves 3 in. long, 2 1/2 in. wide in the widest part, lightly crenate, margin narrowly cartilaginous, minutely apiculate; stipules 2/3 in. long, 1/3 in. wide, only the upper ones fresh, very thinly ciliate. Thyse few-flowered. Male perianth with 2 larger tepals 1/2 in. long, 2/3 in. wide, smaller two 1/3 in. long, 1/6 in. wide, all white. Stamens many, short. Female flowers with 3 obtuse bracts, white, with reflexed margins, shorter than the ovary; female perianth smaller than the male. Ovary with 3 equal wings. Styles 4, bifid, with twisted stigmas.

Species near to *Begonia spatulata*, it differs by the green of the stem and leaves, not reddish as in *Begonia spatulata*, and also by the stipules which in *Begonia spatulata* are all fresh and the lower ones not scarious. It grows on the ground in Porto Allegre, southern Brazil, from where it was sent by the most renowned Sellow.

From the German:

The stem is 1 1/2 ft. tall, hardly woody, erect, branched. The leaves are obliquely cordate, 3 in. long, 2 1/2 in. wide at widest part, shallowly crenate with narrow cartilaginous margin and small steep points in the notches. The stipules are 2/3 in. long, 1/2 in. wide, only the topmost green, the others all withered, with extremely fine little hairs on the margin. The inflorescence few flowered. The male flower 4 tepaled, the two largest tepals 1/2 in. long, 2/3 in. wide, blunt, the smaller two 1/3 in. long, 1/6 in. wide. Filaments of the anthers many and short. The female flowers have 3 bracts, with blades shorter than the ovary, blunt, and the sides reflexed, white; the flower is smaller than the male. The ovary has 3 unequal wings. Four bifid styles with the stigmas turned in a spiral form.

An ornamental plant that blooms often and abundantly, it is similar to *Begonia spatulata*, but differs in the green color of the stems and leaves and in lower stipules withered, not green. It grew upward out of the ground in Porto Allegre, southern Brazil, from where Mr. Sellow sent the plant. It favors a dry and light location and a warmth of 60 degrees to 70 degrees F. It is reproduced easily and quickly by seeds and cuttings. The composition of the soil mix is leaves, humus and river sand.

Observation:

In the Latin description the stipules are, "2/3 in. long, 1/3 in. wide", and in the German description the stipules are, "2/3 in. long, 1/2 in. wide". I think the German description is wrong because in the illustration the width of the stipules is less than 1/2 the length.

Also in the Latin description the "wings of the ovary equal". I think this is an error because of the German description and the illustration have unequal wings.

In April 1829, *Begonia semperflorens* was illustrated by Loddiges, Bot. Cab. 15. pl. 1439 (1829), Fig. 7. This shows an erect plant with leaves opening out flat, with oblong apiculate stipules.



Begonia cucullata var. *cucullata*
after Loddiges, Bot. Cab. 15. pl. 1439. 1829.

FIG. 7

Graham, Edinburgh New Philos. J. 180. May (1829), refers to Loddiges' illustration and gives a very thorough description of a live plant grown from seed obtained from Otto of Berlin.

Begonia semperflorens.

B. semperflorens; caule herbaceo erecto glabro flexuoso, foliis subaequaliter ovato-cordatis, subacutis, cucullatis, glabris, serratis, setaceis; stipulis ovatis ciliatis; capsula alis inaequalibus, duabus acutis, tertia obtusa.

Begonia semperflorens, Lodd. Bot. Cab. t. 1439.

DESCRIPTION.—*Stem* herbaceous, succulent, erect, branched, flexuose, reddish or green, slightly marked with oblong red spots. *Leaves* 3 inches long, by 2½ broad) petioled, subequally cordato-ovate, subacute, cucullate, green, glabrous and shining on both sides, dotted above, paler below, serrated, and serratures acute and crowded at the base, more sparse and blunter above, each terminated with a bristle. *Petiole* (2 inches long in the lower leaves, generally much shorter in the upper,) channelled above, often stained bright red at its origin, and at its termination in the leaf, the stain at its origin generally passing round the stem at the insertion of the stipule. *Stipule* pinnate, ovate, large, ciliated, erect and applied to the stem, submarcescent. *Peduncles* axillary and terminal, longer than the petioles, slightly compressed, erect, glabrous, shining, dichotomous. *Flowers* monoecious. *Corolla* spreading, white: *male*, large, tetrapetalous, two of the petals subtrifid (7½ lines broad), two others rather shorter, narrow, and spatulate, as long as the pedicel; *stamens* scarcely monadelphous: *female* smaller, with three small marcescent bractæ at the base, tetrapetalous, petals subequal; *stigmas* three, each cleft to its base, and segments screw-like, yellow. *Germen* unequally winged, the largest and one of the other wings acute, the third rounded. Bipartite receptacle of the seeds in each of the three loculements of the germen of bright green. *Ovules* very small, very numerous, and white.

Seeds of this species were received from M. Otto at Berlin under the name of *B. setaria*. It has reached this country under other names, and with one of these, *B. semperflorens*, it has been published in the Botanical Cabinet. Rather on this account, than because I think it the most applicable, I adopt it. The species, though handsome enough in the stove, is much less ornamental than several others which have been published lately.

Later that year, W. J. Hooker, Bot. Mag. 56: pl. 2920 (1829), Fig. 8, illustrated and described *Begonia semperflorens*.

His description is somewhat different from the others. "Stem erect...scarcely, if at all branched... large, ovato-oblong...stipules...Capsule...three very unequal wings,...the third forms a large, triangular, very projecting and obtuse membrane."

In the illustration, the stipules are narrowly elliptic and sharply acute (Fig. 3C), and the largest wings of the capsules have a rounded tip (Fig. 4C).

Reichenbach, Icon. Bot. Exot. 3: 12. pl. 231. (1830), Fig. 8, illustrated the flowering summit of *Begonia semperflorens*. The young leaves are cucullate and in the background is an open mature leaf. The stipules are narrowly ovate with an acuminate tip.



Begonia cucullata var. *cucullata*
after Hooker, Bot. Mag. 56. pl. 2920. 1829.

Fig. 8

Polygonaceae

231



Begonia semperflora Lam.

Begonia cucullata var. *cucullata*

Horn del.

Ch. Schum. sc.

after Reichenbach, Icon. Bot. Exot. 3:12. pl. 231. 1830.

Fig. 9

Sweet, Hort. Brit. ed. 2: 437 (1830), separated Hooker's *Begonia semperflorens* Bot. Mag. 56: pl. 2920 (1829) from *Begonia semperflorens* Loddiges, Bot. Cab. 15: pl. 1439 (1829), and gave it a new name, *Begonia hookeri*.

Klotzsch, Begoniac. 28 (1855), apparently did not see Sweet's name and listed *Begonia semperflorens* (Bot. Mag. pl. 2920) as a synonym of his new name *Begonia sellowii* Klotzsch.

A. de Candolle in Martius, Fl. Bras. 4 (1): 342. (1861) listed *Begonia semperflorens* Link & Otto and established var. *hookeri* for *Begonia semperflorens* (Bot. Mag. pl. 2920). He also transferred *Begonia sellowii* Klotzsch to var. *sellowii*.

Lyman Smith and Bernice Schubert, Darwinia 5: 104. (1941), transferred *Begonia semperflorens* var. *hookeri* A. DC. to the new combination *Begonia cucullata* var. *hookeri* and illustrated it by Hooker's Bot. Mag. pl. 2920.

From the above, it is clear that the features of *Begonia semperflorens* Link & Otto are the same as the type and agree best with typical *Begonia cucullata* Willdenow.

Begonia spatulata Loddiges

The original citation of *Begonia spatulata* Loddiges, Bot. Cab. 2. pl. 107 (1818), Fig. 10, has a very brief description stating that...."it blossoms most abundantly: in fact, it is very seldom out of bloom during the whole year. The stem is succulent and heavy...."

Haworth, Succ. Pl. Suppl. 100 (1819), gave this description:

spatula- B. (Spatula-leaved) foliis inæqualiter cordatis,
lata. late obtusèque ovatis, nudis nitidis, utrinque ru-
3. fescente-viridibus.
Begonia spatulata. Loddig. bot. cab. 17.
HABITAT
CULT. in hort. bot. Liverpool A.D. 1813, et nunc
viget in hort. Chels. St. h.

Translation:

Begonia spatulata. *Begonia* (spatula-leaved).
Leaves unequally cordate, broadly obtuse and ovate,
bare, shining, reddish green on both sides.



TYPE

Begonia cucullata var. *spatulata*
after Loddiges, Bot. Cab. 2: pl. 107. 1818.

Fig. 10

Hornemann, Suppl. Hort. Bot. Hafn. 162 (1819), also described *Begonia spatulata*.

6. (post 4). *B. SPATHULATA*: caulescens erecta, foliis ovatis obtusissimis basi tenuissime serrulatis, stipulis oblongis maximis, capsula ala maxima acutangula, reliquis minoribus aequalibus.

Hab. — 4. C. *intr.* 1813. ex horto *Berolin.* sub hoc nomine.

Translation:

Stemmed, erect with leaves ovate, very obtuse at the base, very finely serrulate, stipules oblong, very large, capsule with larger wing sharp angled, the others smaller equal. Habitat Unknown, perennial.

Introduced about 1818 from the Berlin Garden under this name.

Begonia spatulata was also cited by Otto & Dietrich, Allg. Gartenzeitung 45: 358 (1836), and Walpers, Repert. Bot. Syst. 2: 215 (1843).

Steudel, Nom. Bot. ed. 2, 1: 193 (1840), listed *Begonia spatulata* ('spathulata') Willdenow as a synonym of *Begonia cucullata* Willdenow. This was the earliest citation I could find combining these two.

Although there are several references in the literature to *Begonia spathulata* Willdenow, I could not find any description by Willdenow.

Klotzsch, Begoniac. 27 (1855), and A. de Candolle in Martius, Fl. Bras. 4 (1): 342 (1861), accepted Steudel's determination and with their descriptions of *Begonia cucullata* Willdenow listed *Begonia spatulata* as a synonym. They enlarged the previous description of Willdenow by adding features of *Begonia spatulata*, particularly the stipules which they described as "large spatulate"...or..." very large, unequal, elliptical or obovate, obtuse, ciliate-crenate..."

I do not understand how these proficient observers could have described the stipules as spatulate or obtuse when Willdenow's original description called them oblong and the type shows them as oblong with a sharply acute tip. Perhaps they did not see the type.

For all these years, probably based on the descriptions of Klotzsch and A. de Candolle, the illustration of *Begonia spatulata* Loddiges, Bot. Cab. 2 pl. 107 (1818), has been considered the typical *Begonia cucullata* Willdenow.

But a comparison of the roundly obtuse stipules of Loddiges' *Begonia spatulata* (Fig. 3D) with the sharply oblong stipules of the type *Begonia cucullata* (Fig. 3A) shows they are very different.

Even though *Begonia spatulata* Loddiges is not identical to the type of *Begonia cucullata* it has many other similar features and is best transferred to this new variety:

Begonia cucullata var. *spatulata* (Loddiges) var. nov.

Stipulis magnis late oblongis rotunde obtusis dentatis.

Stipules large, broadly oblong, roundly obtuse, dentate.

TYPE: Loddiges, Bot. Cab. 2: pl. 107. 1818 (Fig. 10).

Begonia cucullata var. *arenosicola* (C.DC.) Smith & Schubert.

Begonia subcucullata was established as a new species by C. de Candolle, Bull. Herb. Boissier II. 3: 404 (1903). His description was based on specimens No. 1771 and No. 6130 (Fig. 11B), collected by E. Hassler in Paraguay. In the same place, he named variety *arenosicola* based on Hassler specimen No. 7884 (Fig. 11A).



FIELD MUSEUM OF NATURAL HISTORY
Photographic Collection

No. 20907

ISOTYPE

Begonia cucullata
var. *arenosicola*

Hassler No. 7884. B.

FIG. 11A

Begonia cucullata
var. *arenosicola*

after Isosytype
Begonia subcucullata
Hassler No. 6130. B.

FIG. 11B



Begonia cucullata var. *arenosicola*
after Isosyntype *Begonia subcucullata*
Hassler No. 1771. N.Y.

Fig. 12



Begonia cucullata var. *arenosicola*
after Isosytype *Begonia subcucullata*
Hassler No. 6130. N.Y.

Fig. 13

In 1975 at the New York Botanical Garden Herbarium, I took photographs of *Begonia subcucullata* isosyntypes, Hassler No. 1771 (Fig. 12) and Hassler No. 6130 (Fig. 13).

Lyman B. Smith and Bernice G. Schubert, Darwiniana, 5: 106 (1941) determined that *Begonia subcucullata* C. DC. and *Begonia subcucullata* var. *arenosicola* C. DC. were synonyms of *Begonia cucullata* and established the new combination.

Begonia cucullata var. *arenosicola* (C.DC.) Smith & Schubert.

This variety is distinguished by the narrowly elliptic leaves, rounded at the tip, narrow unequally cuneate at the base, and the larger subentire roundly obtuse stipules. The type of this variety is Hassler No. 7884 (Fig. 11A), Bossier herb. Geneva.

Bettfreund, Fl. Argentina 2. pl. 58 (1900), described and illustrated a plant from Argentina which he considered *Begonia cucullata* Willdenow. From his description and rather poor illustrations, it is best placed as a synonym of *Begonia cucullata* var. *arenosicola*.

Summary of Citations and Synonymy

BEGONIA

cucullata Willdenow var. *cucullata*

Willdenow, Sp. Pl. 4:414. 1805. Brazil
TYPE: Willdenow 17567. B.

semperflorens Link & Otto, Icon, Pl. Rar. 1:9.
pl. 5 (1828); Loddiges, Bot. Cab. 15:
pl. 1439 (1829); Graham, Edinburgh, New
Philos. J. 180 (1829); Hooker, Bot. Mag.
56: pl. 2920 (1829); Reichenbach, Icon. Bot.
Exot. 3: 12. pl. 231. 1830.

setaria hort. ex Graham, Edinburgh New Philos.
J. 180. 1829, pro. syn.

sellovi hort. ex Hooker, Bot. Mag. 56: pl.
2920. 1829, pro. syn.

hookeri Sweet, Hort. Brit. ed. 2: 437. 1830.

sellowii Klotzsch, Begoniac. 28. 1855.

cucullifolia Hasskarl, Hort. Bogor. Descr. 311. 1858.

semperflorens var. *hookeri* A.DC. in Martius, Fl. Bras. 4(1): 342. 1861.

semperflorens var. *sellowii* A.DC. in Martius, Fl. Bras. 4(1): 342. 1861.

semperflorens forma *flavescens* C.DC. Bull. Herb. Boissier II. 3:403. 1903.

paludicola C.DC. Bull. Soc. Bot. Geneve II. 6: 125. pl. 7. 1914. '*palludicola*'.

cucullata var. *hookeri* Smith & Schubert, Darwiniana 5: 104. 1941.

var. *spatulata* (Loddiges) Golding, Phytologia 1982
Brazil.

TYPE: Loddiges, Bot. Cab. 2: pl. 107. 1818.

spatulata, Loddiges, Bot. Cab. 2: pl. 107 (1818); Haworth, Succ. Pl. Suppl. 100. 1819.

spatulata Hornemann, Suppl. Hort. Bot. Hafn. 162. 1819, '*spathulata*'

nervosa Hort. Par. ex Humb. Bonpl. & Kunth, Nov. Gen. Sp. 7: folio 136, quarto 177. 1825.

cuneata Walpers, Repert. Bot. Syst. 2: 214. 1843.

cucullata sensu Klotzsch, Begoniac. 27. 1855.

cucullata sensu A.DC. in Martius, Fl. Bras. 4 (1): 342. 1861.

agrifol Rojas, Le Mondes des Plantes 74: 24. 1913.

cucullata var. *typica* sensu Smith & Schubert. Darwiniana 5. 101. 1941.

var. *arenosicola* (C.DC) Smith & Schubert, Darwiniana
5: 106. 1941. Argentina & Paraguay.

TYPE: Hassler No. 7884.

cucullata sensu Bettfreund, Fl. Argentina 2:
94. pl. 58. 1900.

subcucullata C.DC. Bull. Herb. Boissier II.
3: 404. 1903.

subcucullata var. *arenosicola* C.DC. Bull. Herb.
Boissier II. 3: 404. 1903.

ACKNOWLEDGEMENTS

I thank Lyman B. Smith, Bernice G. Schubert and Carrie Karegeannes for their assistance with the preparations for this monograph and their critiques of my draft manuscript.